What is claimed is:

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A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot, said medical device comprising:

an interior elastic fabric sheet (for engaging a human foot; and

an exterior non-extensible fabric sheet joined with said interior sheet in a manner forming a foot wrap, wherein:

said foot wrap comprises an inflatable bladder at an interior side of said exterior

sheet; and

said interior sheet is adapted to exert a lateral force on said inflatable bladder such that said inflatable bladder is maintained substantially wrinkle free when applied to a human foot.

The medical device as recited in claim 1, wherein said inflatable bladder comprises at least a portion of said interior sheet.

3. The medical device as recited in claim 1, wherein said inflatable bladder is formed between said interior sheet and said exterior sheet, said inflatable bladder consisting essentially of a portion of said interior sheet, a portion of said exterior sheet and an inlet for inflation thereof.

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The medical device as recited in claim 3, wherein said inlet comprises a tubular fluid connector opening into said inflatable bladder and suitable for connecting said inflatable bladder in fluid communication with a source of pressurized fluid for cyclical application of fluid pressure to a human foot.

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- 5. The medical device as recited in claim 3, wherein said portion of said interior sheet and said portion of said exterior sheet are perimetrically sealed to form said inflatable bladder.
- 6. The medical device as recited in claim 5, wherein said inflatable bladder is formed by heat-welding said interior sheet to said exterior sheet.
- 7. The medical device as recited in claim 3, wherein said interior sheet comprises a vapor permeable construction.

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g. A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot, said medical device comprising:

an interior elastic fabric sheet for engaging a human foot;

an exterior non-extensible fabric sheet joined with said interior sheet in a manner forming an foot wrap having an integral bladder formed between said interior sheet and said exterior sheet;

a first tab for releasably securing said foot wrap to a human foot by wrapping around the arch; and

an elongate second tab for releasably securing said foot wrap to a human foot by wrapping around the heel.

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Q. The medical device as recited in claim 8, wherein said second tab is generally perpendicular to said first tab when said foot wrap is laid flat.

- 10. The medical device as recited in claim 9, said medical device further comprising a third tab, said third tab being generally opposed to said first tab.
  - 11. The medical device as recited in claim 10, wherein:

said exterior sheet consists essentially of a hook-type connector compatible base material;

said first tab comprises a first releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said first and third tabs having dimensions sufficient for said foot wrap to wrap completely around the arch of a human foot with the distal end of said first tab overlapping a distal end of said third tab; and

said second tab comprises a second releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said second tab having a length dimension sufficient for said foot wrap to wrap completely around the heel of a human foot with the distal end of said second tab overlapping said first tab when said first and third tabs are wrapped about the arch of a human foot.

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The medical device as recited in claim 10, wherein:

said exterior sheet consists essentially of a hook-type connector compatible base

said third tab comprises a first releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said first and third tabs having dimensions sufficient for said foot wrap to wrap completely around the arch of a human foot with the distal end of said third tab overlapping a distal end of said first tab; and

said second tab comprises a second releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said second tab having a length dimension sufficient for said foot wrap to wrap completely around the heel of a human foot with the distal end of said second tab overlapping said first tab when said first and third tabs are wrapped about the arch of a human foot.

13. A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot, said medical device comprising:

a foot wrap for engaging a human foot, said foot wrap having an integral inflatable bladder and an outer surface consisting essentially of a hook-type compatible base material;

a first tab appended to said foot wrap for releasably securing said foot wrap to a human foot by wrapping around the arch; and

an elongate second tab appended to said foot wrap for releasably securing said foot wrap to a human foot by wrapping around the heel.

14. The medical device as recited in claim 13, wherein said second tab is generally perpendicular to said first tab when said foot wrap is laid flat.

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15. The medical device as recited in claim 14, said medical device further comprising a third tab appended to said foot wrap, said third tab being generally opposed to said first tab.

16. The medical device as recited in claim 15, wherein:

said first tab comprises a first releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said first and third tabs having dimensions sufficient for said foot wrap to wrap completely around the arch of a human foot with the distal end of said first tab overlapping a distal end of said third tab; and

said second tab comprises a second releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said second tab having a length dimension sufficient for said foot wrap to wrap completely around the heel of a human foot with the distal end of said second tab overlapping said first tab when said first and third tabs are wrapped about the arch of a human foot.

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A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot, said medical device comprising:

an interior elastic fabric sheet for engaging a human foot;

an exterior non-extensible fabric sheet consisting essentially of a hook-type connector compatible base material, said exterior sheet being joined with said interior sheet in a manner forming a one-piece foot wrap having:

an integral inflatable bladder formed between the inner surfaces of said interior and exterior sheets;

a first tab for releasably securing said foot wrap to a human foot by wrapping around the arch;

an elongate second tab for releasably securing said foot wrap to a human foot by wrapping around the heel, said second tab being generally perpendicular to said first tab when said foot wrap is laid flat;

a third tab generally opposed to said first tab; and

a main portion positioned generally between said first, second and third tabs;

a first releasable hook-type connector permanently attached to an inner surface of a distal end of said first tab, said first and third tabs having dimensions sufficient for said foot wrap to wrap completely around the arch of a human foot with the distal end of said first tab overlapping a distal end of said third tab;

a second releasable hook-type connector permanently attached to an inner surface of a distal end of said second tab, said second tab having a length dimension sufficient for said foot wrap to wrap completely around the heel of a human foot with the distal end of said second tab overlapping said main portion.

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- 18. The medical device as recited in claim 17, wherein the inner surface of said exterior sheet comprises a heat-weldable laminate and the inner surface of said interior sheet comprises a heat-weldable laminate, said exterior sheet being heat-welded to said interior sheet to form said one-piece foot wrap.
  - 19. The medical device as recited in claim 18, said medical device further comprising a tubular fluid connector opening into said integral inflatable bladder and suitable for connecting said integral inflatable bladder in fluid communication with a source of pressurized fluid for inflating said integral inflatable bladder.

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